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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/924,860

08/08/2001

Prema Venkatesulu

D2693

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43471

7590

09/26/2005

GENERAL INSTRUMENT CORPORATION DBA THE CONNECTED  
HOME SOLUTIONS BUSINESS OF MOTOROLA, INC.  
101 TOURNAMENT DRIVE  
HORSHAM, PA 19044

EXAMINER

MURPHY, RHONDA L

ART UNIT

PAPER NUMBER

2667

DATE MAILED: 09/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/924,860

Applicant(s)

VENKATESULU ET AL.

Examiner

Rhonda Murphy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37.CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. This communication is responsive to the amendment filed on July 12, 2005.

Accordingly, claim 26 has been canceled and claims 1 – 25 are currently pending in this application.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 - 6, 10, 12, 17-21 and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by McKinnon III et al. (US 2001/0039582).

**Regarding claims 1 and 6**, McKinnon III teaches a cable network, comprising: a data switching system (Fig. 2, CMTS 30) in communication with a plurality of network elements (Fig. 2, cable modems - CM 34), said data switching system being adapted to query said network elements from time to time for status information (page 5, paragraph 65: data collector 88 issues queries to the CMs; page 6, paragraph 67: the data collector initiates collection from the CMs occur at thirty minute intervals).

The data collector 88, located within network manager 86, queries the cable modems via the CMTS. It would merely be a design choice for either the CMTS, or the network manger to query the network elements, since the information is retrieved by

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way of the CMTS. Hence, the data switching system/CMTS is adapted to query the network elements/cable modems.

The data switching system stores the status information in a database (a database would be inherent in order to store the collected data); and a management system (Fig. 2, network access manager 86) for managing network elements on the cable network (page 5, paragraph 60), said management system being adapted to obtain network element status information from said database (page 5, paragraph 63; database manager 90 (located within network access manager 86) receives information processed by the data collector),

wherein the data switching system queries said network elements by a ranging request (page 5, paragraph 65: data collector 88 issues queries to the CMs), and the status information is determined based on a response by a network element to the ranging request (page 5, paragraph 65: counter values of logical data units are returned for the users).

**Regarding claims 2 and 25**, McKinnon III teaches the management system adapted to manage the data switching system (page 5, paragraph 60; the data collector communicates with each CMTS and CMs for which network access is managed by the network access manager).

**Regarding claims 3 and 18**, McKinnon III teaches the plurality of network elements being selected from the group consisting of cable modems (Fig. 2, cable modems 34).

**Regarding claims 4 and 19**, McKinnon III further teaches the plurality of network elements as a plurality of cable modems (Fig. 2, cable modems 34).

**Regarding claims 5 and 20**, McKinnon III further teaches the data switching system adapted to route data from the cable modem users over a multiplex network interface (page 1, paragraph 5; packets are transmitted by the CMs to the CMTS using time division multiplexing).

**Regarding claim 10**, McKinnon III further teaches a plurality of data switching systems (CMTS's 30, Fig. 2), each which is in communication with a plurality of endpoint devices (CM's 34), and is adapted to query the endpoint devices from time to time for status information and to store the status information in a database (as described above in the rejection of claim 1).

**Regarding claim 12**, McKinnon III further teaches the data switching system adapted to query the network elements every 30 minutes (page 6, paragraph 67; the data collector initiates collection from the CMs occur at thirty minute intervals).

**Regarding claims 17 and 21**, McKinnon III teaches a method of providing a cable network comprising a data switching system (Fig. 2, CMTS 30) in communication with a plurality of network elements (Fig. 2, cable modems - CM 34); providing a management system (Fig. 2, network access manager 86) for managing the network elements on the cable network (page 5, paragraph 60), the management system being in communication with the database (page 5, paragraph 63; Fig. 6; database manager 90, located within network manager 86, receives information processed by the data collector, wherein the database is located within the data collector); providing a ranging request signal from the data switching system to each of the network elements of the plurality of network elements (page 5, paragraph 65: data collector 88 issues queries to the CMTS and

CMs); determining status information for each of the plurality of network elements based on a response from each of the plurality of network elements to the communication signal, respectively (page 5, paragraph 65: counter values of logical data units are returned for the users); and storing this status information in a database (a database would be inherent in order to store the collected data); and accessing the status information from the database by way of said management system (page 5, paragraph 63; database manager 90 receives information processed by the data collector).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 7, 9, 11, 15 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKinnon III et al., in view of Hsieh et al. (US 6,512,824).

**Regarding claims 7, 9 and 22**, McKinnon teaches a network access manager as an operations system to manage the data switching system/CMTS's and network elements/CMs (page 5, paragraph 60), but fails to disclose the management system as an element management system (EMS) adapted to configure the data switching system.

However, Hsieh teaches an EMS capable of configuring network elements (col. 5, lines 16-18). In view of this, it would have been obvious for the management system

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to configure the data switching system for the purpose of initializing or changing data within the system.

**Regarding claim 11**, the same limitations are taught in the rejection of claim 9.

**Regarding claim 15**, McKinnon teaches the same limitations as described in the rejection of claims 1, 3 and 7. McKinnon teaches a management system in communication with the CMTS, said management system being adapted to obtain status information about the network elements from at least one file (as described in the rejection of claim 1). McKinnon does not disclose the management system as an EMS.

However, Hsieh teaches an EMS. Therefore, it would have been obvious to one having ordinary skill in the art to include an EMS as the management system for the purpose of communicating to the CMTS and cable modem, while retrieving status information about the network elements.

**5.** Claims 8, 14, 16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKinnon III, in view of Carlson et al. (US 2004/0210632).

**Regarding claims 8, 16 and 23**, McKinnon teaches a database and management system that obtains network element status information from said database, as described in the rejection of claim 7 and 15. McKinnon fails to disclose a Lifetest procedure.

However, Carlson discloses a Lifetest procedure described as LTP, which derives state information from network devices (page 1, paragraph 13 and 55-56). In

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view of this, it would have been obvious to one skilled in the art to include a Lifetest procedure for the purpose of obtaining state information from the network devices.

**Regarding claim 14**, McKinnon teaches a data switching system, but fails to teach the assignment status selected from up, down or transitional.

However, Carlson teaches the assignment of up, down and unknown operational status (page 1, paragraph 13 and 57). In view of this, it would have been obvious for McKinnon to incorporate Carlson's operation status in order to indicate the state in which the device is operating.

6. Claims 13 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over McKinnon III et al, in view of Applicant's Admitted Prior Art (AAPA).

**Regarding claims 13 and 24**, McKinnon teaches a DOCSIS MIB on page 6, paragraph 66. McKinnon fails to explicitly disclose a DOCSIS radio frequency MIB.

However, AAPA teaches, on pages 6-7 of the specification, that DOCSIS requirements specify an RF Management Information Base (MIB). Therefore, it would have been obvious to one having ordinary skill in the art to incorporate a DOCSIS RF MIB into McKinnon's system for the purpose of enabling system vendors to develop a management system to support spectrum management and other operations.



***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rhonda Murphy whose telephone number is (571) 272-3185. The examiner can normally be reached on Monday - Friday 8:00 - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.


For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Rhonda Murphy  
Examiner  
Art Unit 2667

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SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2667 9/23/05